

Coleopterous Fauna of Phoenix, Arizona, and Surrounding Regions.

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The Salt River Valley of Arizona, that part of it in which we were interested, is about 60 miles in length, with an average width of 15 miles.

The elevation is about 1200 feet above sea-level, surface even, with an inclination of about 10 feet to the mile.

It is surrounded by mountains, some of which are lofty and quite picturesque.

In the valley proper the soil is a rich alluvium of varying depths, and by irrigation produces a variety of crops in great abundance.

Like all the arid regions of the west, there is a variety of climates; the summer heat sets in early, is intense and long lasting, but not accompanied with any of the pernicious effects noticed in localities nearer the seaboard. The winters are usually mild. The dryness of the atmosphere is perpetual, and all animal and vegetable matters rapidly desiccate.

The soils of the desert are of decomposed granitic and lava rock mixed with sand and markedly alkaline, while the mesas or table lands are composed of rocks and boulders covered with a veneer of soil.

Central and southern Arizona has a flora peculiar to itself. The cacti, yuccas and agavas are the most prominent. The plains are thickly covered with a great variety of shrubs and bushes; the grease-wood growing on the driest of the deserts, is the most conspicuous shrub.

Along the water-courses are a variety of trees, the mesquite, cottonwood, willow, sycamore and ash. At first sight there seems to be much of a sameness in the flora of the plains; the uniform sage-green character of the foliage, with a preponderance of red and yellow flowers would suggest a limited flora.

Close examination gives a number and variety of genera and species that is almost a wonder; what to-day is a boundless barren sand waste, when irrigated by a passing shower soon bursts into full floral beauty and we wonder at the productiveness of the soil.

The timber is confined to the ranges and water-courses, while scattered growths of mesquite and palo-verde cover the foothills and isolated places on the plains.

Leaving the cultivated portion of the valley, we see the true character of the country; long level stretches covered with grease-wood under whose shelter many rare and delicate forms of plant life grow.

As the country becomes more broken we reach the cacti zone where we find ourselves in a veritable forest of these curiosities of plant life.

Yuccas, an occasional pine and stunted oaks appear, but all about you denotes the absence of the one great factor for the welfare of this wonderful country—water.

The rains come at last, the desert blossoms, and with the flowers come the insects, showing us a wealth of life that is truly wonderful.

Thus in brief we have an idea of the physical condition of the country.

The principal town of the region is Phœnix; in making our collecting excursions it was our headquarters. Being a dry season, with about one-tenth of an inch of rain in ten months, and most of the collecting done from October to May, the conditions were not favorable to represent the fauna, but the series gives an idea of its extent.

As will be seen by the subjoined list, there is commingling of the fauna of the North with the Sonoran fauna of Mexico.

As civilization advances, and larger areas of desert lands are reclaimed by irrigation, climatic changes will take place, forcing the desert fauna to recede southward or become extinct, so that collections made in future years will show marked changes from those recorded by LeConte, Horn, Hubbard, Schwarz, Wickham and others.

Of the immediate habits of the insects little is known except of such forms as occur elsewhere. *Cyllene antennatus* and *Trogosita virescens* inhabit the mesquite and prove very destructive.

In the most barren part of the desert we find *Edrotes ventricosus*, which are always in a hurry, though only to be found in the early hours, hiding in their burrows during the heat of mid-day.

Elcodes armata, *longicollis* and some others move with a slow, majestic stride; when touched, they elevate the abdomen, walking off, apparently, on their heads; the name "kangaroo bugs" has been applied to them by the ranchmen.

Asidas are retiring and found, as a rule, under some protecting material.

Hololepta yucateca was found abundantly in decomposing *Cercus giganteus*, while *H. cacti* seemed to be a stranger to the region.

Chilocorus cacti always found on old mesquite trees which are badly infested with various scale insects.

Many forms of Tenebrionidæ are nocturnal in their habits; the intense heat of day often kills them when almost in their burrows. This we saw in many instances in the sandy bottoms along the Rio Verde.

Curious tracks left in the sand by beetles at once attract the eye; *Eusattus muricatus* will leave their marks of characteristic appearance. The larger *Elcodes* making similar ones but longer, and by following these we were able to locate their burrows.

Those of *Dinodreus* differ somewhat, the tarsal joints bending inward to help them along, and they are always to be found about the roots of plants.

Cicindela guttifera found on wet sand along the Rio Verde, very wild and unassociated with any other species.

Allorhina mutabilis proves a great menace to the horticulturist, the fruit trees seeming alive with them.

Cotalpa consobrina is another pest, some seasons appearing in vast numbers.

The young willow shoots gave us *Chalcolepidius webbii*, *behrensii* and *tartarus*, without any of the unpleasant experiences of Wickham and others.

Hippomelas sphenicus we found in November, and so closely does it resemble the branches of the mesquite that it requires close searching to find them.

Flushing the banks of streams with water furnished many species of riparian beetles, but the larger number were taken at the electric light, as were the majority of Staphylinidæ.

One of the best captures at lights was a specimen of *Achryson surinamum*, which is found more commonly in South America.

The decomposing tissues of the giant cactus forms a veritable mine of insects, in such numbers that one is astonished.

There does not appear to be any limit to the collecting season, each month furnishing additional species. The acme of collecting is from May to August, when, however, the intense heat renders field work very trying.

The requisites for collecting in this country are a good team to take you from point to point, a strong canvas net capable of resisting the thorns and spikes with which all vegetation is covered, a very long pair of metal forceps to reach specimens concealed between the spines of cacti; and the always imperative canteen of water.

I have refrained from using the terms rare or scarce as from personal observation; if one collects at the right time our rarities would become common. To illustrate: on May 10th, on the desert northeast of Mesa, just at dusk, with a storm threatening, the air seemed suddenly alive with a whirring mass of insects, flying about the grease-wood, which was in full bloom. In the short time allowed before the storm broke we collected as many as possible, and found to our delight the hitherto rare Tenebrionid—*Cnemodus testaceus*.

I may safely say thousands could have been taken at the time, but the most careful search afterwards under similar conditions failed to discover any; such was our observation of many other forms, and it is a safe rule to take advantage of these opportunities, as others infrequently occur.

For the localities mentioned in the appended list, Phoenix being the center, the Salt River, up and down for several miles, is from one to two miles south. Tempe Desert, northeast from Tempe for many miles. Mesa, east of Tempe eight miles and the surrounding country. Rio Verde, northeast from Phoenix fifty miles, all collecting done on east side of river from Mr. Latterett's ranch.

For a long time to come collectors may visit this region with profit to themselves, and be delighted with acquiring material under new and strange conditions. Had my health permitted

more active collecting, the series would have been much extended and been a truer exponent of the fauna.

In preparing the list I am indebted to Chas. Liebeck for the bulk of the assorting and determinations, and also to H. C. Fall, of Pasadena, Cal., for much assistance.

LIST OF SPECIES.*

- CICINDELIDÆ.
Tetracha carolina Linn., Ph.
Cicindela guttifera Lec., R. V.
 micans Fab., Ph.
 lemniscata Lec., Ph.
 prætextata Lec., Ph.
- CARABIDÆ.
Omophron gilæ Lec., Ph.
Calosoma prominens Lec., Ph.
 triste Lec., Ph., T. D.
Scarites subterraneus Fab., Ph.
Dyschirius truncatus Lec. Ph.
 sp. S. R.
Clivina ferrea Lec., S. R.
 bipustulata Fab. var. R. V.,
 S. R.
Schizogenius crenulatus Lec., S. R.
 depressus Lec., Ph., R. V.,
 S. R.
 n. sp., S. R.
Bembidium transversale Dej., Ph.,
 S. R.
 lugubre Lec., Ph.
 striola Lec., Ph.
 nubiculosum Chaud., Ph.
 timidum Lec., Ph., S. R.
 versicolor Lec., Ph., S. R.
 scintillans Bates, Ph.
Tachys rapax Lec., S. R.
 audax Lec., R. V.
 trechiformis Hayw., R. V.
Pericompsus sellatus Lec., Ph.
Pterostichus subcordatus Lec., Ph.,
 R. V.
Amara jacobinæ Lec., Ph.
- Amara californica Dej.*, Ph.
 gibba Lec., Ph., R. V.
Platynus nutans Say., Ph.
 punctiformis Say., Ph., R. V.
 sp., Ph., R. V.
Lachnophorus elegantulus Mann.,
 Ph.
Thalpius Horni Chd., Ph.
Ega letula Lec., S. R.
Tetragonoderus fasciatus Hld., Ph.
 pallidus Horn, R. V.
Lebia guttula Lec., S. R.
 bivittata Fab., Ph.
Apristus subsulcatus Dej., Ph., R. V.
Blechnus nigrinus Mann., S. R.
Axinopalpus fusciceps Lec., S. R.
Callida platynoides Horn, R. V.
Cymindis laticollis Say, Ph.
 n. sp., Ph.
Apenes nebulosa Lec., Ph.
Helluomorpha ferruginea Lec., Ph.
Brachynus Tchernikhii Mann., ? R.
 V., S. A.
 carinulatus Mots., ? Ph., R. V.
Chlænus sericens Forst. var. R. V.
 leucoscelis Chev., R. V., S. R.
Oodes elegans Lec., S. R.
Piosoma setosum Lec., Ph.
Agonoderus lineola Fab., R. V.
 pallipes Fab., Ph.
Discoderus impotens Lec., Ph., R. V.
 robustus Horn., Ph., R. V.
 amoenus Lec., ? Ph., R. V.
 sp., R. V.
 cordicollis Horn, Ph., R. V.

* Abbreviations for localities:—Ph., Phoenix; S. R., Salt River; R. V., Rio Verde; T. D., Tempe Desert.

Stenomorphus rufipes Lec., Ph.
Harpalus caliginosus Fab., Ph.
 pennsylvanicus Dej., Ph.
Selenophorus palliatus Lec., Ph.,
 S. R.
 pedicularius Dej., Ph., R. V.,
 S. R.
Stenolophus cincticollis Lec., Ph.,
 R. V.
 ochropezus Say., Ph.
Bradycellus rivalis Lec., ? Ph.
Anisotarsus flebilis Lec., Ph.
 sp., Ph., R. V.
Pseudomorpha angustata Horn.,
 R. V.

HALIPLIDÆ.

Cnemidotus callosus Lec., Ph.

DYTISCIDÆ.

Laccophilus decipiens Lec., Ph.
 mexicanus Aube., Ph.
Bidessus cinctellus Lec., Ph.
Hydroporus sp., Ph.
 sp., Ph.
Copelatus chevrolatii Aube., Ph.
Agabus lugens Lec., Ph.
 semivittatus Lec., R. V.
Eretes sticticus Linn., Ph.
Thermonectes latecincta Lec., Ph.
Cybister explanatus Lec., Ph.

HYDROPHILIDÆ.

Helophorus lineatus Say., Ph.
Hydrophilus triangularis Say., Ph.
 limbalis Lec., Ph.
 ellipticus Lec., Ph.
Berosus exilis Lec., Ph.
 infuscatus Lec., Ph.
Chætarthria pallida Lec., Ph.
Laccobius agilis Rand., Ph.
Philydrus pectoralis Lec., Ph.
Cercyon capillatum Lec., T. D.
Dactylosternum cacti Lec., T. D.

SILPHIDÆ.

Necrophorus Melsheimeri Kõy., Ph.

STAPHYLINIDÆ.

Homalota semiopaca Fvl., R. V.,
 S. R.
 sp., R. V.
Aleochara bimaculata Grav., Ph.
 nitida Grav., R. V.
 sp., Ph.
Maseochara semivelutina Sol., T. D.
 opacella Sharp, R. V., T. D.
Heterothops occidentis Cas., Ph.
Quedius desertus Horn, Ph.
Creophilus villosus Grav., R. V.
Xanthopygus cacti Horn., T. D.
Staphylinus sp., Ph.
Belonuchus ephippiatus Say, T. D.
Philonthus semiruber Horn, Ph.,
 R. V.
 hepaticus Er., Ph.
 flavolimbatus Er., S. R.
 grandicollis Horn, Ph.
 longicornis Steph., S. R.
 alumnus Er. var. Ph., R. V.
 lomatus Er. var. R. V., S. R.
 quadrolus Horn, R. V.
Actobius gratus Lec., R. V., S. R.
 pæderoides Lec., R. V.
 elegantulus Horn, R. V.
Xantholinus dimidiatus Lec., Ph.,
 R. V.
 sp., Ph.
Cryptobium pimerianum Lec., Ph.,
 R. V.
 arizonense Horn, Ph.
 prospiciens Lec., Ph.
Lathrobium lituarium Lec., Ph.
Lithocharis tabacina Cas., R. V.,
 T. D.
Pæderus femoralis Lec., S. R.
Pinophilus densus Lec., Ph., S. R.
Physetoporus grossulus Lec., T.
 D., R. V.
Erchomus punctipennis Lec., Ph.
Bledius flavipennis Lec., R. V.
 sp., Ph.
Platystethus americanus Er., R. V.
Oxytelus sp., R. V.
Apocellus sp., S. R., R. V.

COCCINELLIDÆ.

- Megilla maculata* *De G.*, Ph.
Hippodamia convergens *Guer.*, Ph.
Coccinella abdominalis *Say.*, Ph.
Chilocorus cacti *Linn.*, Ph., T. D.
Exochomus marginipennis *Lec.*, Ph.
Hyperaspis lugubris *Rand.*, Ph.
Scymnus ardelis *Horn.*, Ph.

ENDOMYCHIDÆ.

- Eripocus unicolor* *Horn.*, Ph.

COLYDIIDÆ.

- Ditoma ornata* *Lec.*, Ph.
sulcata *Lec.*, Ph.
Phloeonemus catenulatus *Horn.*,
 Ph.

CUCUJIDÆ.

- Silvanus nitidulus* *Lec.*, Ph.
advena *Wall.*, Ph.
 sp., Ph.

CRYPTOPHAGIDÆ.

- Cryptophagus* sp., Ph.

MYCETOPHAGIDÆ.

- Litargus balteatus* *Lec.*, Ph.
Typhoea fumata *Linn.*, Ph.

DERMESTIDÆ.

- Dermestes marmoratus* *Say.*, T. D.
Mannerheimi *Lec.*, T. D.
caninus *Germ.*, Mesa.
vulpinus *Fab.*, Ph., R. V.
Attagenus Horni *Jayne*, Ph.
varicolor *Jayne*, Ph.
Trogoderme sternale *Jayne*, Ph.
Cryptorhopalum balteatum *Lec.*,
 Ph.
apicale *Mann.*, Ph.
triste *Lec.*, ? Ph.

HISTERIDÆ.

- Hololepta yucateca* *Mars.*, T. D.
populnea *Lec.*, Ph.
Hister servus *Er.*, Ph.

- Epiurus regularis* *Beauv.*, Ph.
planulus *Er.*, Ph.
nasutus *Horn.*, Ph.
Paromalus gilensis *Lec.*, Ph.
Saprinus obscurus *Lec.*, Ph.
lugens *Er.*, Ph.
pennsylvanicus *Payk.*, Ph.
vitiosus *Lec.*, Ph., Mesa.
 sp., Mesa.
cærulescens *Lec.*, Mesa.

NITIDULIDÆ.

- Carpophilus hemipterus* *Linn.*, Ph.
pallipennis *Say.*, Ph., T. D.
floralis ? Ph., Mesa.
discoideus *Lec.*, Ph.

TROGOSITIDÆ.

- Trogosita virescens* *Fab.*, Ph.
Alindria teres *Melsh.*, Ph.
Tenebrioides sp., Ph.

BYRRHIDÆ.

- Limnichus analis* *Lec.*, Ph.

HETEROCERIDÆ.

- Heterocerus collaris* *Kies.*, Ph.
pallidus *Say.*, Ph.
pusillus *Say.*, Ph.

DASCYLLIDÆ.

- Anorus parvicollis* *Horn.*, Ph.

ELATERIDÆ.

- Anelastes Latreillei* *Lec.*, Ph.
Chalcolepidius Webbiai *Lec.*, Ph.
tartarus *Fall.*, Ph.
Behrensii *Cand.*, Ph.
Horistonotus simplex *Lec.*, Ph.
Esthesopus dispersus *Horn.*, Ph.
 sp., Ph.
Anchastus bicolor *Lec.*, Ph.
Monocepidius robustus *Horn.*, Ph.
Discrepidius corvinus *Cand.*, Ph.
Drasterius livens *Lec.*, Ph.
Ludius texanus *Lec.*, Ph.
Melanotus fissilis *Say.*, Ph.

BUPRESTIDÆ.

- Hippomelas sphenicus *Lec.*, Ph.
 Chrysobothris octocola *Lec.*, Ph.
 debilis Lec., Ph.
 lixa Horn, Ph.
 Acmæodera ornata *Fab.*, T. D.
 cuneata Fall, T. D., R. V.
 acuta Lec., T. D.
 Griffithii Fall, T. D.
 Agrilus felix *Horn*, Ph.
 palmacollis Horn, Ph.

LAMPYRIDÆ.

- Lycus cruentatus *Lec.*, T. D.
 Lycaina marginatus *Gorh.*, Ph.
 Pyropyga fenestralis *Melsh.*, Ph.
 Mastinocerus opaculus *Horn*, Ph.
 Chauliognathus scutellaris *Lec.*, Ph.

MALACHIDÆ.

- Collops 4-maculatus *Fab.*, Ph.
 pulchellus Horn, Ph.
 vittatus Say, Ph.
 Attalus oregonensis *Horn*, ? T. D.
 rufiventris Horn, T. D.
 circumscriptus Say, T. D.
 cinctus Lec., T. D.
 lobulatus Lec., T. D.
 sp., T. D.
 Pristoscelis umbratus *Lec.*, T. D.
 propinquus Cas., T. D.
 four species indet, T. D.
 Listrus impressus *Chev.*, T. D.
 ferrugineus Chev., T. D.
 Pseudallonyx plumbeus *Lec.*, T. D.
 sp., T. D.
 Allonyx sp., T. D.
 Rhadalus testaceus *Lec.*, Ph.

CLERIDÆ.

- Cymatodera puncticollis *Bland.*, Ph.
 californica Horn, Ph.
 Beliragei Horn, Ph.
 oblita Horn, Ph.
 Trichodes ornatus *Say*, Mesa.
 Hydnocera discoidea *Lec.*, Ph.
 pallipennis Say, var. Ph.
 Necrobia rufipes *Fab.*, T. D., R. V.,
 Ph.

PTINIDÆ.

- Catorama sp., Ph.
 Hemiptychus punctatus *Lec.*, Ph.
 pusillus Lec., Ph.
 Sinoxylon sericans *Lec.*, Ph.
 sextuberculatum Lec., Ph.
 quadriscopinosum Lec., Ph.
 Amphicerus fortis *Lec.*, Ph.
 punctipennis Lec., Ph.

SCARABÆIDÆ.

- Canthon puncticollis *Lec.*, R. V.
 simplex Lec., Ph.
 corvinus Horn, Ph.
 Psanmodius nanus *Horn*, Ph.
 Atænius desertus *Horn*, Ph.
 gracilis Melsh., Ph.
 Haroldi Steinh., Ph.
 læviventris Horn, Ph.
 Aphodius granarius *Linn.*, Ph.
 vittatus Say, Ph., R. V.
 lividus Oliv., Ph.
 rubiginosus Horn, Ph.
 rubidus Lec., Ph.
 larræa Horn, Ph.
 Ochodæus sparsus *Lec.*, Ph.
 Pachyplectrus lævis *Lec.*, R. V.
 Bradycinetus serratus *Lec.*, Ph.
 Trox suberosus *Fab.*, Ph.
 sonoræ Lec., Ph.
 atrox Lec., Ph.
 Glaresis sp., Ph., T. D.
 Acoma brunnea *Cas.*, Ph.
 Diplotaxis puberula *Lec.*, Ph.
 mærens Lec., Ph.
 atratula Lec., ? Ph.
 three species indet, Ph.
 Listrochelus scoparius *Lec.*, Ph.
 mucoreus Lec., T. D.
 timidus Horn, Ph.
 Polyphylla Hammondi *Lec.*, Ph.
 Pelidnota lugubris *Lec.*, Ph.
 Cotalpa consobrina *Horn*, Ph.
 flavida Horn, Ph.
 Cyclocephala immaculata *Oliv.*, Ph.
 longula Lec., Ph.
 dimidiata Burn., Ph.

Ligyus gibbosus DeG., Ph.
 ruginasus Lec., Ph.
Aphonides Dunniana Rivers, Ph.
Strategus julianus Burm., ? Ph.
Dynastes Grantii Horn, Ph.
Phileurus illatus Lec., Ph.
Allorhina mutabilis Gory, Ph.

CERAMBYCIDÆ.

Mallodon manibularis Harold, Ph.
Derobrachus geminatus Lec., Ph.
Achryson surinamum Lec., Ph.
Eburia n. sp., Ph.
Eustroma validum Lec., Ph.
Æthecerus latecinctus Horn, T. D.
Crossidius intermedius Ulke, Ph.
Sphænothecus suturalis Lec., T. D.
Ischnocnemis bivittatus Dup., Ph.
Cyllene antennatus White, Ph.
Ataxia crypta Say, Ph.

CHRYSOMELIDÆ.

Euryscopa Lecontei Cr., T. D.
Pachybrachus abdominalis Say, Ph.
 sp., Ph.
Monachus Guerini Perb., Ph.
Myochrous longulus Lec., Ph.
Metachroma californica Cr., Ph.
 interrupta Say, Ph.
 longulum Horn, Ph.
Colaspis brunnea Fab., Ph.
Gastroidea cyanea Melsh., R. V.
Malacosoma brevicorne Jac., Ph.
Diabrotica 12-punctata Oliv., Ph.
 balteata Lec., Ph., R. V.
 trivittata Mann., Ph.
Monoxia sordida Lec., Ph.
Disonycha quinquevittata Say, Ph.
 arizonæ Cas., Ph.
Phyllotreta pusilla Horn, Ph.

BRUCHIDÆ.

Bruchus Ulkei Horn, Ph.
 n. sp. Ph.
 prospopis Lec., Ph.
 n. sp., Ph.
 uniformis Lec., Ph.
 amicus Horn, Ph.

TENEBRIONIDÆ.

Edrotes ventricosus Lec., T. D.
Triorophus lævis Lec., T. D.
Eurymetopon rufipes Esch., Ph.
 dubium Cas., Ph., T. D.
 cylindricum Cas., Ph.
 serratum Lec., Ph.
Emmenastus longulus Lec., Ph.
 punctatus Lec., Ph.
 subopacus Horn, T. D.
Cnemodus testaceus Horn, Mesa.
Chilometopon ? sp., R. V.
Zopherus tristis Lec., T. D., Mesa.
Dacoderus striaticeps Lec., Ph.
Aræoschizus decipiens Horn, Ph.
Cryptoglossa verrucosa Lec., T. D.
Centrioptera muricata Lec., R. V.,
 T. D.
 variolosa Horn, T. D., Ph.
Asida actuosa Horn, T. D.
 semilævis Horn, T. D.
 confluens Lec., Ph.
 parallela Lec., Ph.
 Wickhami Horn, T. D., Ph.
 hispidula Lec., T. D.
 convexa Lec., T. D.
 blapsoides Sol., ? T. D.
 marginata Lec., T. D.
 n. sp., T. D.
Eusattus reticulatus Say, T. D.
 dubius Lec., Ph.
 muricatus Lec., R. V.
Eleodes obscura Say, R. V.
 carbonaria var. *soror* Lec.,
 T. D.
 obsoleta Say, Ph.
 armata Lec., T. D., R. V.
 longicollis Lec., R. V.
 hispidabris Say, R. V.
Argoporis costipennis Lec., T. D.
 bicolor Lec., T. D.
Amphidora caudata Horn, Ph.
Nyctobates subnitens Horn, Ph.
Ipthimus sublævis Bland, R. V.
Cælocnemis magna Lec., R. V.
Adelina Lecontei Horn, Ph.
Alæphus pallidus Horn, Ph.

Eupsophus castaneus Lec., Ph.

Mecysmus angustus Lec., Ph.

Blapstinus sordidus Lec., Ph.

auripilus Horn, Ph.

dilatatus Lec., Ph.

Lecontei Muls., Ph.

two species indet, Ph.

Notibius gagates Horn, R. V.

granulatus Lec., R. V., T. D.

Ulus crassus Lec., Ph.

sp., Ph.

Tribolium ferrugineum Fab., Ph.

Mycotrogus ? sp., Ph.

Aphanotus brevicornis Lec., ? Ph.

Alphitobius diaperinus Panz., Ph.

piceus Oliv., Ph.

Helops arizonensis Horn, Ph.

Platydema janus Fab., Ph.

CISTELIDÆ.

Hymenorus occidentalis Cas., Ph.

punctatissimus Lec., Ph.

sp. near *occidentalis Cas.*, Ph.

MONOMMIDÆ.

Hyporhagus gilensis Horn, R. V.

MELANDRYIIDÆ.

Eustrophus arizonensis Horn, Ph.

bicolor Say, Ph.

PYTHIDÆ.

Trimitomerus Riversii Horn, Ph.

CEDEMERIDÆ.

Oxaxis lucana Lec., Ph.

MORDELLIDÆ.

Anaspis sp., Ph.

Mordella scutellaris Fab. var., Ph.

Mordellistena comata Lec., Ph.

ambusta Lec., Ph.

unicolor Lec., Ph.

ANTHICIDÆ.

Stereopalpus sp., Ph.

Xylophilus brunnipennis Lec., Ph.

Notoxus calcaratus Horn, Ph.

Mecynotarsus delicatulus Horn, Ph.

Anthicus confinis Lec., Ph.

horridus Lec., Ph.

quadrilunulatus Laf., Ph.

two species indet, Ph.

MELOIDÆ.

Nemognatha lurida Lec., Ph.

lutea Lec., Ph.

bicolor Lec., Ph.

dichroa Lec. ? Ph.

vittigera Lec., Ph.

sp., Ph.

Gnathium minimum Say, Ph.

nitidum Horn, Ph.

Macrobasis longicollis Lec., Ph.

virgulata Lec., Ph.

tenuilineata Horn, Ph.

lauta Horn, Ph.

tenella Lec., Ph.

Epicauta caviceps Horn, Ph.

maculata Say, Ph.

Wheeleri Ulke, Ph.

cupreola Duges, Ph.

two new species, Ph.

Pyrota mylabrina Chev., Ph.

Akhurstiana Horn, Ph.

Calospasta elegans Lec., R. V.

nemognathoides Horn, Ph.

OTIORHYNCHIDÆ.

Eupagoderes decipiens Lec., Ph.

n. sp. Ph.

Eucyllus vagans Horn, Ph.

Cyphus lautus Lec., Ph.

lautus Lec. var. ? Ph.

CURCULIONIDÆ.

Apion occidentale Fall, Ph.

Dinocleus saginatus Cas., Ph.

Dorytomus inaequalis Cas., Ph.

Desmoris constrictus Say, Ph.

sp., Ph.

Synertha imbricata Cas., Ph.

Tychius setosus Lec., R. V., Mesa.

Conotrachelus seniculus Lec., Ph.

Baris strenua Lec., Ph.

transversa Say, T. D., Ph.

Onychobaris mystica Cas., Ph.

Balaninus sp., Ph.

CALANDRIDÆ.

Sphenophorus sp., near *placidus*

Say, Ph.

ANTHRIBIDÆ.

Brachytarsus sp., Ph.